

What is claimed is:

1. A sequential comparison type AD converter comprising:
series resistors for generating at respective connection
5 portions reference values to convert an analog value to an m-bit
digital value;
a comparator for sequentially comparing the analog value
and one of the reference values and outputting a digital value;
a plurality of capacitive elements for distributing any
10 one of the reference values by a capacitance ratio; and
a control unit for switching a value compared to the
analog value by the comparator from the reference value to a
distribution value of the plurality of capacitive elements when
the comparator outputs an m-bit digital value,
15 wherein the analog value is converted to an $(m + n)$ bit
digital value.
2. The sequential comparison type AD converter according
to claim 1, wherein the plurality of capacitive elements
20 distribute by the capacitance ratio the difference of reference
values generated at predetermined connection portions of the
series resistors.
3. The sequential comparison type AD converter according
25 to claim 2, wherein the plurality of capacitive elements
comprise a first capacitance element and a second capacitance
element, wherein
the first capacitance element and second capacitance
element are connected in series between any one of the reference
30 values and a ground, and wherein
connection portions of the first capacitance element and

second capacitance element are connected to inputs of the comparator to which the analog value is not input.

4. The sequential comparison type AD converter according
5 to claim 3, wherein the capacitance ratio of the first
capacitance element and second capacitance element is $1:(2^n - 1)$, in accordance with the $(m + n)$ bits.
5. The sequential comparison type AD converter according
10 to any one of claims 1 to 4, further comprising a switching
circuit for switching on and off input of the reference value
to the comparator, based on an output of the control unit.
6. A microcomputer comprising the sequential comparison
15 type AD converter according to claim 1.